

A Solution to the Increasing Menace

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Abstract

Environmental Engineering is the integration of science and engineering principles to improve the natural environment, to provide healthy water, air, and land for human habitation and for other organisms. Furthermore, it is concerned with finding plausible solutions in the field of public health, such as arthropod-borne diseases, implementing law which promotes adequate sanitation in urban, rural and recreational areas. Since time immemorial man has been exploiting the nature to derive energy and harness power for its own means. Excessive degradation of natural resources especially the non renewable ones in the past has started to show its dire consequences today. It has become the need of the hour to save our limited sources for our forthcoming generation. As a result of the reckless exploitation of our mother earth, environmental engineering has emerged as an elegant solution to the increasing menace of the most common and inevitable problem present today known as pollution. Earlier due to lack of facilities, combating pollution was considered to be an uphill task. But today with modern machinery and techniques it has become easy to fight pollution. The main objective of this paper is to demonstrate how environmental engineering has helped to maintain the pollution levels at the national level.

1. Introduction

Pollution is the introduction of contaminants into the natural environment that causes adverse change. Pollution can take the form of chemical substances or energy, such as noise, heat or light. Pollutants, the components of pollution, can be either foreign substances/energies or naturally occurring contaminants. Pollution is often classed as point source or nonpoint source pollution.

There are several types of pollution, and while they may come from different sources and have different consequences, understanding the basics about pollution can help environmentally conscious individuals minimize their contribution to these dangers. In total, there are nine recognized sources of pollution in the modern world. These sources of pollution don't simply have a negative impact on the natural world, but they can have a measurable effect on the health of human beings as well.

They are

- Air Pollution
- Water Pollution
- Land Pollution
- Noise Pollution
- Radioactive Pollution
- Thermal Pollution

2. Scenario of Pollution Worldwide

Industries, households, cars and trucks emit complex mixtures of air pollutants, many of which are harmful to health. Of all of these pollutants, fine particulate matter has the greatest effect on human health. Most fine particulate matter comes from fuel combustion, both from mobile sources such as vehicles and from stationary sources such as power plants, industry, households or biomass burning.

Fine particulate matter is associated with a broad spectrum of acute and chronic illness, such as lung cancer and cardiopulmonary disease. Worldwide, it is estimated to cause about 9% of lung cancer deaths, 5% of cardiopulmonary deaths and about 1% of respiratory infection deaths as shown in fig1. Particulate matter pollution is an environmental health problem that affects people worldwide, but middle-income countries disproportionately experience this burden.

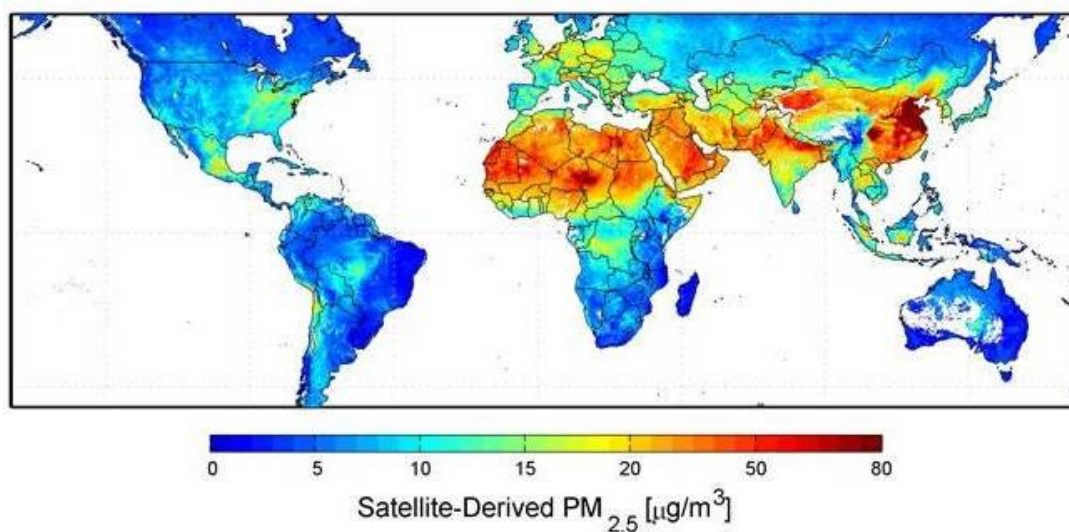


Fig. 1

3. Problem Background

There are many **environmental issues in India**. Air pollution, water pollution, garbage, and pollution of the natural environment are all challenges for India. The situation was worse between 1947 through 1995. According to data collection and environment assessment studies of World Bank experts, between 1995 through 2010, India has made one of the fastest progress in the world, in addressing its environmental issues and improving its environmental quality. Still, India has a long way to go to reach environmental quality similar to those enjoyed in developed economies. Pollution remains a major challenge and opportunity for India.

4. Statistical Information

Environmental engineering is concerned with finding plausible solutions in the field of public health, such arthropod-borne diseases, implementing laws which promote adequate sanitation in urban, rural and recreational areas. Ever since it has come into play, pollution levels has decreased by considerable amounts as shown in fig 2.

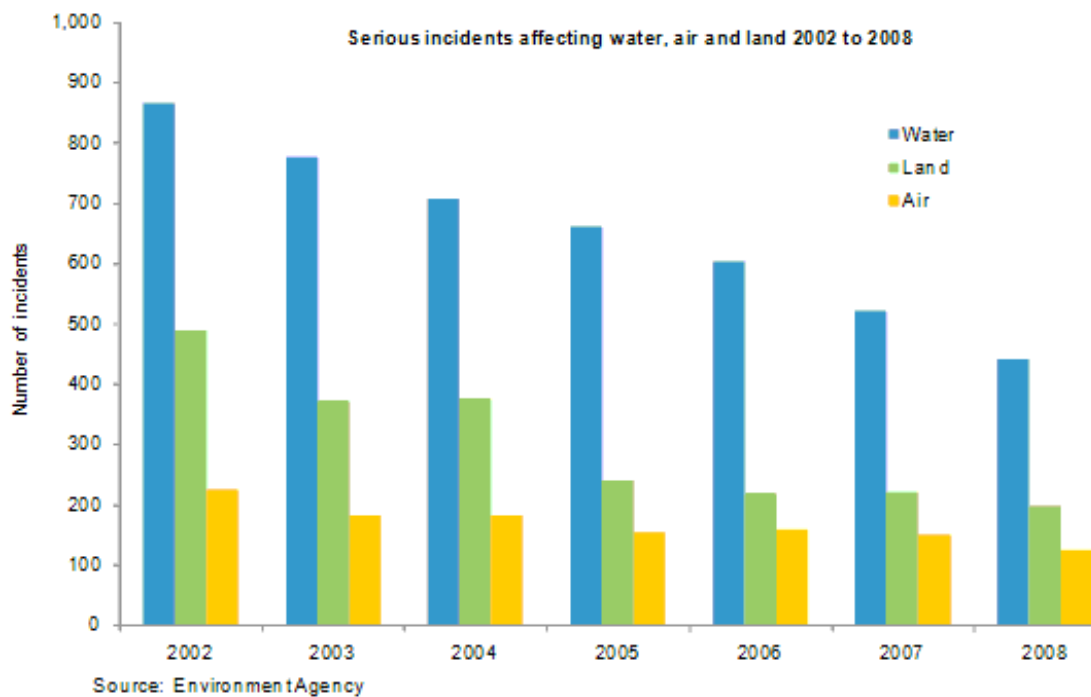


Fig. 2

Over exploitation of resources impedes enormous stress on the natural habitat of organisms. The over strained pressure leads to hazardous consequences. Figure 3, shows the increase in air pollution drastically over the years and water abstractions by major use due to industry, public water supply.

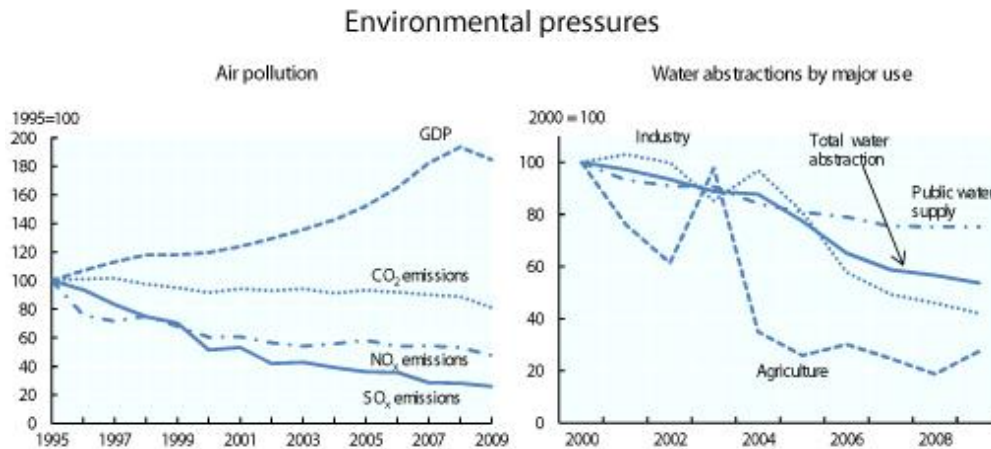


Fig. 3

5. Conclusion

The collated information is based on surveys concludes that pollutants not only affects the life style of an organism in its natural habitat but also wind patterns , stunted plant growth and other metabolical and environmental concerns. The most difficult challenge for the future environment engineering will be those that arise from basic nature of overpopulated and industrialised society. Protecting the environment will require full cycle engineering i.e. good engineering combined with the consideration and appreciation for the efforts of engineering on the earth's limited natural resource and its fragile environment.

According to Murphy's rule , "If the worst has to happen,it will happen". But with the advent of environment engineering its quite probable that Murphy's rule may collapse.

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